IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method for producing single crystal silicon by which the single crystal silicon is produced by dipping a seed crystal in a melt and pulling the seed crystal up along an axial direction thereof, wherein

The seed crystal is pulled up in a state in which a <110> crystal orientation is inclined with respect to the axial direction of the seed crystal ~~in order to~~and eliminating a slip dislocation in a necking process.

2. (original) A method for producing single crystal silicon by which the single crystal silicon is produced by dipping a seed crystal in a melt and pulling the seed crystal up along an axial direction thereof, comprising:

a step of preparing the seed crystal in which a <110> crystal orientation is inclined at a predetermined angle θ with respect to the axial direction;

a dislocation network elimination step of gradually reducing a diameter of the single crystal silicon to d1 after the seed crystal has been brought into contact with the melt; and

a slip dislocation elimination step of further growing the single crystal silicon by a length of at least d1/tan θ, while maintaining the diameter thereof at almost d1.

3. (original) The method for producing single crystal silicon according to claim 1, wherein

the direction of inclining the <110> crystal orientation with respect to the axial direction of the seed crystal is a direction of rotation about another <110> crystal orientation, which is in a perpendicular positional relationship with the <110> crystal orientation, as a rotation axis.

4. (original) The method for producing single crystal silicon according to claim 2, wherein the direction of inclining the <110> crystal orientation with respect to the axial direction of the seed crystal is a direction of rotation about another <110> crystal orientation, which is in a perpendicular positional relationship with this <110> crystal orientation, as a rotation axis.

5. (original) A method for producing single crystal silicon wafer by which the single crystal silicon wafer is produced by dipping a seed crystal in a melt, growing the seed crystal into a single crystal silicon ingot by pulling it along an axial direction thereof, and slicing the single crystal silicon ingot, comprising:

a pulling step of pulling and growing the seed crystal into a single crystal silicon ingot in a state in which a <110> crystal orientation is inclined at a predetermined angle θ with respect to the axial direction of the seed crystal; and

a slicing step of slicing the single crystal silicon ingot in a direction perpendicular or almost perpendicular to the <110> crystal orientation to take out the single crystal silicon wafer.

6. (original) A method for producing single crystal silicon wafer by which the single crystal silicon wafer is produced by dipping a seed crystal in a melt, growing the seed crystal into a single crystal silicon ingot by pulling it along an axial direction thereof, and slicing the single crystal silicon ingot, comprising:

a step of preparing the seed crystal in which a <110> crystal orientation is inclined at a predetermined angle θ with respect to the axial direction;

a dislocation network elimination step of gradually reducing a diameter of the single

crystal silicon to d1 after the seed crystal has been brought into contact with the melt;

a slip dislocation elimination step of further growing the single crystal silicon by a length of at least d1/tan θ, while maintaining the diameter thereof at almost d1;

an ingot producing step of pulling the seed crystal to produce the single crystal silicon ingot; and

a slicing step of slicing the single crystal silicon ingot in a direction perpendicular or almost perpendicular to the <110> crystal orientation to take out the single crystal silicon wafer.

7. (original) The method for producing single crystal silicon wafer according to claim 5, wherein

the direction of inclining the <110> crystal orientation at a predetermined angle θ with respect to the axial direction of the seed crystal is a direction of rotation about another <110> crystal orientation, which is in a perpendicular positional relationship with the <110> crystal orientation, as a rotation axis.

8. (original) The method for producing single crystal silicon wafer according to claim 6, wherein

the direction of inclining the <110> crystal orientation at a predetermined angle θ with respect to the axial direction of the seed crystal is a direction of rotation about another <110> crystal orientation, which is in a perpendicular positional relationship with the <110> crystal orientation, as a rotation axis.

9. (original) The method for producing single crystal silicon wafer according to claim 5,

wherein

the predetermined angle θ at which the <110> crystal orientation is inclined with respect to the axial direction of the seed crystal is within a range of $0.6^\circ \leq \theta \leq 10^\circ$.

10. (original) The method for producing single crystal silicon wafer according to claim 6, wherein

the predetermined angle θ at which the <110> crystal orientation is inclined with respect to the axial direction of the seed crystal is within a range of $0.6^\circ \leq \theta \leq 10^\circ$.

11. (currently amended) A seed crystal for producing single crystal silicon, which is used for producing the single crystal by a CZ method, wherein ~~a <110> crystal orientation is inclined with respect to an axial direction.~~

a direction of inclining a <110> crystal orientation at a predetermined angle θ with respect to an axial direction of the single crystal silicon ingot is a direction of rotation about another <110> crystal orientation, which is in a perpendicular positional relationship with the <110> crystal orientation, as a rotation axis.

12. (cancelled)

13. (currently amended) A single crystal silicon ingot produced by a CZ method, wherein

~~a <110> crystal orientation is inclined at a predetermined angle θ with respect to an axial direction.~~

a direction of inclining a <110> crystal orientation at a predetermined angle θ with respect to an axial direction of the single crystal silicon ingot is a direction of rotation about another <110> crystal orientation, which is in a perpendicular positional relationship with the <110> crystal orientation, as a rotation axis.

14. (cancelled)

15. (currently amended) ~~The single crystal silicon ingot according to claim 13, wherein~~ ~~The predetermined angle θ at which the <110> crystal orientation is inclined with respect to the axial direction of the single crystal silicon ingot is within a range of 0.6° <θ<10°.~~

a single crystal silicon ingot produced by CZ method, wherein a <110> crystal orientation is within range of 0.6° <0< 10° with respect to an axial direction.

16. (cancelled)